



**Switched-mode power supply unit, 100-240VAC/24VDC/12VDC, 0.35A/0.02A, 1-phase, controlled**

**Part no. EASY200-POW**  
**Catalog No. 229424**

**EL-Nummer 0004520990**  
**(Norway)**

## Delivery program

|                            |  |   |   |
|----------------------------|--|---|---|
| Product range              |  |   | Control relay easyRelay<br>Multi-function-display MFD-Titan |
| Product range              |  |   | Switched-mode power supply units easyPOW                    |
| Basic function accessories |  |   | Accessories for remote monitoring unit                      |
| Description                |  |   | primary chopper controlled                                  |
| Phases                     |  |   | Single-phase  |
| Input voltage range        |  |   | 85 - 264 V AC   |
| Nominal input voltage      |  |   | 100 - 240 V AC  |
| Rated output voltage       |  |   | 24 V DC (± 3%)<br>12 V DC (± 4%)                            |
| Rated output current       |  | A | 0.35<br>0.02  |
| For use with               |  |   | easy500<br>easy700<br>easy800<br>MFD-CP8<br>EC4P<br>ES4P    |

## Technical data

### General

|                        |  |    |  |
|------------------------|--|----|--|
| Standards              |  |    | EN 55011, EN 55022, IEC/EN 61000-4, IEC 60068-2-6, IEC 60068-2-27                                |
| Dimensions (W x H x D) |  | mm | 35.5 (2 PE) x 90 x 58  |
| Weight                 |  | kg | 0.1  |
| Mounting               |  |    | Top-hat rail IEC/EN 60715, 35 mm or screw fixing using fixing brackets ZB4-101-GF1 (accessories) |

### Terminal capacities

|                        |  |                 |                       |
|------------------------|--|-----------------|-----------------------|
| Solid                  |  | mm <sup>2</sup> | 0.2/4 (AWG 22 - 12)   |
| Flexible with ferrule  |  | mm <sup>2</sup> | 0.2/2.5 (AWG 22 - 12) |
| Standard screwdriver   |  | mm              | 3.5 x 0.8             |
| Max. tightening torque |  | Nm              | 0.6                   |

### Climatic environmental conditions

|  |  |     |   |
|--|--|-----|---|
| Operating ambient temperature  |  | °C  | -25 to 55, cold as per IEC 60068-2-1, heat as per IEC 60068-2-2 |
| Condensation   |  |     | Take appropriate measures to prevent condensation               |
| Storage  |  | °C  | - 40 - 70   |
| Relative humidity, non-condensing (IEC/EN 60068-2-30)                              |  | %   |   |
| Air humidity, non-condensing, min.   |  | %   | 5   |
| Air humidity, non-condensing, max.   |  | %   | 95  |
| Air pressure (operation)   |  | hPa | 795 - 1080  |
| Max. installation altitude above sea level, observe derating with higher altitudes |  | m   | 2000  |

### Ambient conditions, mechanical

|  |             |         |          |
|--|-------------|---------|----------|
| Protection type (IEC/EN 60529, EN50178, VBG 4)                             |             |         | IP20     |
| Vibrations (IEC/EN 60068-2-6)  |             | Hz      |          |
| Constant amplitude 0.15 mm   |             | Hz      | 10 - 57  |
| Constant acceleration 2 g  |             | Hz      | 57 - 150 |
| Mechanical shock resistance (IEC/EN 60068-2-27) semi-sinusoidal 15 g/11 ms |             | Impacts | 18       |
| Drop to IEC/EN 60068-2-31  | Drop height | mm      | 50       |

|   |   |                  |  |
|---|---|------------------|--|
| Free fall, packaged (IEC/EN 60068-2-32)                       |   | m                | 1  |
| Mounting position   |   |                  | Vertical or horizontal   |
| <b>Electromagnetic compatibility (EMC)</b>                    |   |                  |  |
| Electrostatic discharge (IEC/EN 61000-4-2, Level 3, ESD)      |   | kV               |  |
| Air discharge   |   | kV               | 8  |
| Contact discharge   |   | kV               | 6  |
| Electromagnetic fields (RFI) to IEC EN 61000-4-3              |   | V/m              | 10   |
| Radio interference suppression                                |   |                  | EN 55011 Class B, EN 55022 Class B   |
| Burst pulses (IEC/EN 61000-4-4, level 3)                      |   | kV               | 2  |
| Power pulses (surge) (IEC/EN 61000-4-5)                       |   | kV               | 2 (supply cables, symmetrical)   |
| High-energy pulses (surge) (IEC/EN 61000-4-5, level 2), 24 V  |   | kV               | 0.5 (outgoer cables symmetrical, EASY...DC)                                      |
| Immunity to line-conducted interference to (IEC/EN 61000-4-6) |   | V                | 10   |
| Surge voltage (EN 50178), 24 V                                |   | kV               | 6  |
| <b>Insulation resistance</b>                                  |   |                  |  |
| Clearance in air and creepage distances                       |   |                  | EN 50178   |
| Insulation resistance   |   |                  | EN 50178   |
| Protection class $U_{out}$ to $U_{in}$                        |   |                  | Class II to IEC 60536  |
| Potential isolation primary/secondary                         |   |                  | Yes, SELV (VDE 0100 Part 410; IEC 60364-4-41, HD 384.4.41 S2) EN 60950, EN 50178 |
| <b>Input voltage</b>  |   |                  |  |
| Rated input voltage DC  |   | V                | 100/120/230/240 (-15/+10 %)  |
| Protective switches AC  |   |                  | FAZ-C1/1 or FAZ-B6/1   |
| DC protective switches  |   |                  | FAZ-C2/1-DC  |
| Voltage range   |   | V AC             | 85 - 264   |
| Frequency range   |   | Hz               | 47 - 63  |
| Mains failure bridging 115/230 V (IEC/EN 61000-4-11)          |   | ms               | > 10/> 20  |
| Fuse 115/230 V  |   | A                | 1.5 slow   |
| <b>Rating data</b>  |   |                  |  |
| Efficiency  |   | %                | > 80   |
| Power consumption   |   | W                | Normally 7   |
| Power loss  | P | W                | Normally 1   |
| <b>Input current</b>  |   |                  |  |
| Input current nominal 115/240 V                               |   | mA               | Approx. 170/80   |
| Inrush current at 25 °C 230 V                                 |   | A                | < 5  |
| <b>Output voltage</b>   |   |                  |  |
| 12 V DC (reference voltage)                                   |   |                  |  |
| Rated value   |   | V DC             | 12   |
| Tolerance   |   | %                | ± 4  |
| Switching peaks   |   | mV <sub>SS</sub> | < 7  |
| Effect of input voltage                                       |   | %                | ± 1  |
| Effect with 25 - 100 % load change                            |   | %                | ± 1  |
| 24 V DC   |   |                  |  |
| Rated value   |   | V DC             | 24   |
| Tolerance   |   | %                | ± 3  |
| Switching peaks 115/230                                       |   | mV <sub>PP</sub> | < 50/30  |
| Effect of input voltage                                       |   | %                | ± 1  |
| Effect with 25 - 100 % load change                            |   | %                | ± 1  |
| <b>Output current</b>   |   |                  |  |
| 12 V DC (reference voltage)                                   |   |                  |  |
| Output current  |   | mA               | 0 - 20   |
| Effectiveness of current limitation                           |   | mA               | 20   |
| Reduction of output voltage after current limitation          |   | V                | < 12   |
| Overload proof  |   |                  | Yes, by current limitation permanently short-circuit proof                       |
| Proof against sustained short circuit                         |   |                  | Yes  |
| 24 V DC   |   |                  |  |
| Output current  |   | A                | 0 - 0.35   |
| Effectiveness of current limitation                           |   | A                | > 0.4  |
| Overload proof  |   |                  | Yes, by current limitation   |

|   |      |                  |
|---|------|------------------|
| Proof against sustained short circuit   |      | Yes, hiccup-mode |
| <b>Special load conditions</b>  |      |                  |
| Lamp load, cold, 24 V DC  | W    | 2                |
| Base load present   | W    | 1                |
| Behaviour on emergency-stop in 24 V circuit, disconnection with contactor (contactor load, no damage) | W    | 6                |
| <b>Displays</b>   |      |                  |
| Indication of output voltage (LED, continuous green light = OK)                                       | V DC | 24               |

## Design verification as per IEC/EN 61439

|  |            |    |  |
|--|------------|----|--|
| Technical data for design verification   |            |    |  |
| Rated operational current for specified heat dissipation   | $I_n$      | A  | 0  |
| Heat dissipation per pole, current-dependent   | $P_{vid}$  | W  | 0  |
| Equipment heat dissipation, current-dependent  | $P_{vid}$  | W  | 0  |
| Static heat dissipation, non-current-dependent   | $P_{vs}$   | W  | 1  |
| Heat dissipation capacity  | $P_{diss}$ | W  | 0  |
| Operating ambient temperature min.   |            | °C | -25  |
| Operating ambient temperature max.   |            | °C | 55   |
| IEC/EN 61439 design verification   |            |    |  |
| 10.2 Strength of materials and parts   |            |    |  |
| 10.2.2 Corrosion resistance  |            |    | Meets the product standard's requirements.   |
| 10.2.3.1 Verification of thermal stability of enclosures   |            |    | Meets the product standard's requirements.   |
| 10.2.3.2 Verification of resistance of insulating materials to normal heat   |            |    | Meets the product standard's requirements.   |
| 10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects |            |    | Meets the product standard's requirements.   |
| 10.2.4 Resistance to ultra-violet (UV) radiation   |            |    | Meets the product standard's requirements.   |
| 10.2.5 Lifting   |            |    | Does not apply, since the entire switchgear needs to be evaluated.   |
| 10.2.6 Mechanical impact   |            |    | Does not apply, since the entire switchgear needs to be evaluated.   |
| 10.2.7 Inscriptions  |            |    | Meets the product standard's requirements.   |
| 10.3 Degree of protection of ASSEMBLIES  |            |    | Meets the product standard's requirements.   |
| 10.4 Clearances and creepage distances   |            |    | Meets the product standard's requirements.   |
| 10.5 Protection against electric shock   |            |    | Does not apply, since the entire switchgear needs to be evaluated.   |
| 10.6 Incorporation of switching devices and components   |            |    | Does not apply, since the entire switchgear needs to be evaluated.   |
| 10.7 Internal electrical circuits and connections  |            |    | Is the panel builder's responsibility.   |
| 10.8 Connections for external conductors   |            |    | Is the panel builder's responsibility.   |
| 10.9 Insulation properties   |            |    |  |
| 10.9.2 Power-frequency electric strength   |            |    | Is the panel builder's responsibility.   |
| 10.9.3 Impulse withstand voltage   |            |    | Is the panel builder's responsibility.   |
| 10.9.4 Testing of enclosures made of insulating material   |            |    | Is the panel builder's responsibility.   |
| 10.10 Temperature rise   |            |    | The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices. |
| 10.11 Short-circuit rating   |            |    | Is the panel builder's responsibility.   |
| 10.12 Electromagnetic compatibility  |            |    | Is the panel builder's responsibility.   |
| 10.13 Mechanical function  |            |    | The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.                         |

## Technical data ETIM 7.0

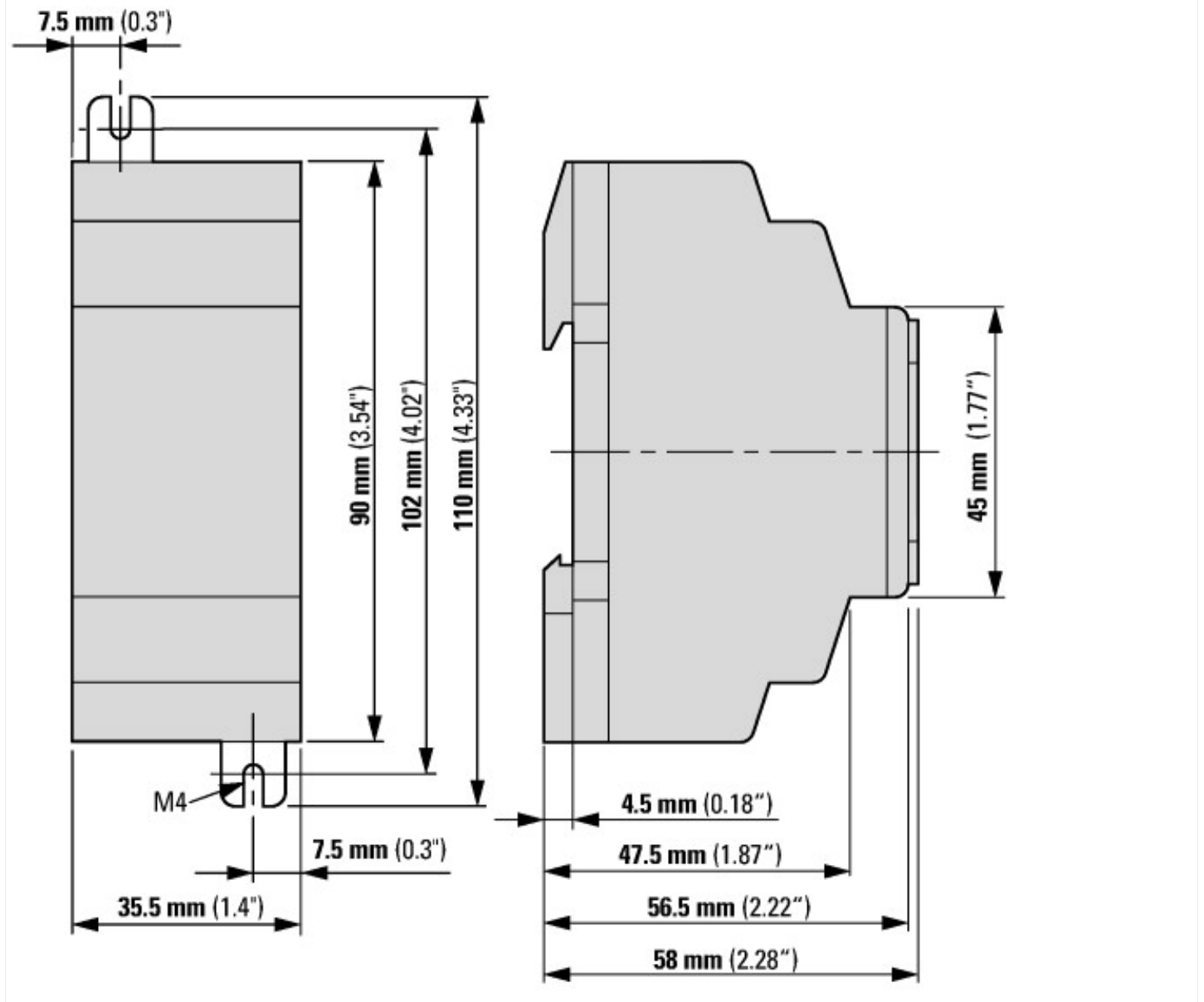
|   |   |          |
|---|---|----------|
| PLC's (EG000024) / PLC system power supply (EC000599)   |   |          |
| Electric engineering, automation, process control engineering / Control / Programmable logic control (SPS) / SPS system power supply (ecl@ss10.0.1-27-24-22-09 [AKE532014]) |   |          |
| Input voltage at AC 50 Hz   | V | 85 - 264 |
| Input voltage at AC 60 Hz   | V | 85 - 264 |
| Input voltage at DC   | V | 0 - 0    |
| Type of voltage (input voltage)   |   | AC       |
| Max. input current AC 50 Hz   | A | 0        |
| Max. input current AC 60 Hz   | A | 0        |
| Max. input current DC   | A | 0        |
| Type of output voltage  |   | DC       |

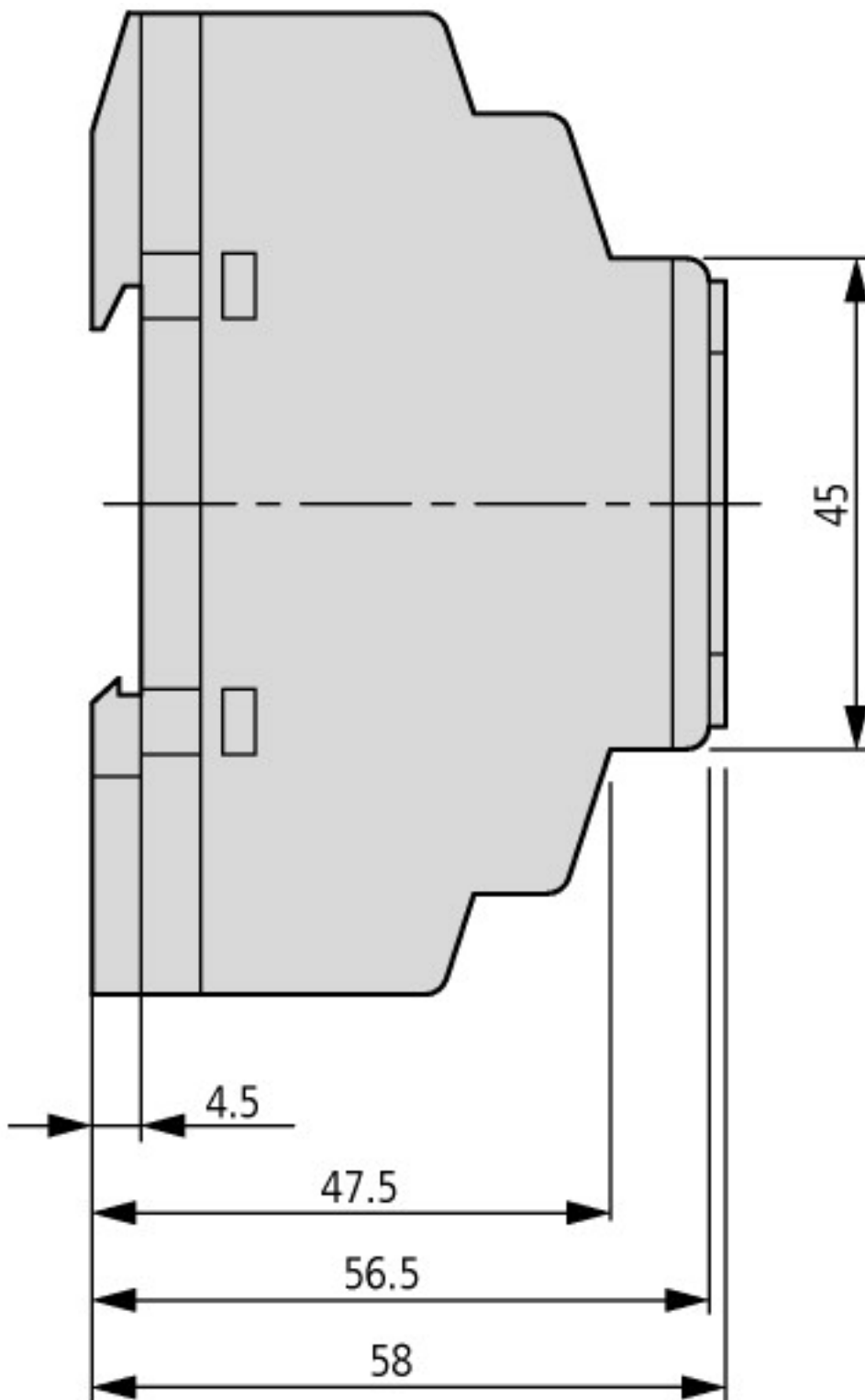
|                               |    |         |
|-------------------------------|----|---------|
| Type of output voltage        |    | DC      |
| Output voltage at AC 50 Hz    | V  | 0 - 0   |
| Output voltage at AC 60 Hz    | V  | 0 - 0   |
| Output voltage at DC          | V  | 12 - 24 |
| Max. output current AC 50 Hz  | A  | 0       |
| Max. output current AC 60 Hz  | A  | 0       |
| Max. output current DC        | A  | 0.35    |
| Power output                  | W  | 8.4     |
| Redundancy                    |    | No      |
| Suitable for safety functions |    | No      |
| Width                         | mm | 32      |
| Height                        | mm | 90      |
| Depth                         | mm | 60      |

## Approvals

|                             |  |   |
|-----------------------------|--|---|
| Product Standards           |  | IEC/EN see Technical Data; UL 508; CSA C22.2 No. 142-M1987; CSA C22.2 No. 213-M1987; CE marking |
| UL File No.                 |  | E135462   |
| UL Category Control No.     |  | NRAQ  |
| CSA File No.                |  | 012528  |
| CSA Class No.               |  | 2252-01 + 2258-02   |
| North America Certification |  | UL listed, CSA certified  |
| Degree of Protection        |  | IEC: IP20, UL/CSA Type: -   |

## Dimensions





## Additional product information (links)

### Instruction leaflet "power supply unit" IL05012003Z (AWA2727-1869)

Instruction leaflet "power supply unit" IL05012003Z (AWA2727-1869) [ftp://ftp.moeller.net/DOCUMENTATION/AWA\\_INSTRUCTIONS/IL05012003Z2018\\_02.pdf](ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL05012003Z2018_02.pdf)

### Manual "easy800 control relays" MN04902001Z (AWB2528-1423)

Handbuch „Steuerrelais easy800“ MN04902001Z (AWB2528-1423) - Deutsch [ftp://ftp.moeller.net/DOCUMENTATION/AWB\\_MANUALS/MN04902001Z\\_DE.pdf](ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN04902001Z_DE.pdf)

Manual "easy800 control relays" MN04902001Z (AWB2528-1423) - English [ftp://ftp.moeller.net/DOCUMENTATION/AWB\\_MANUALS/MN04902001Z\\_EN.pdf](ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN04902001Z_EN.pdf)

### Manual "easy500, easy700 control relays" MN05013003Z (AWB2528-1508)

Handbuch „Steuerrelais easy500, easy700“ MN05013003Z (AWB2528-1508) - Deutsch [ftp://ftp.moeller.net/DOCUMENTATION/AWB\\_MANUALS/MN05013003Z\\_DE.pdf](ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05013003Z_DE.pdf)

Manual "easy500, easy700 control relays" MN05013003Z (AWB2528-1508) - English [ftp://ftp.moeller.net/DOCUMENTATION/AWB\\_MANUALS/MN05013003Z\\_EN.pdf](ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05013003Z_EN.pdf)

### Manual "easyControl, EC4-200 programmable PLC" MN05003003Z

Handbuch „easyControl, SPS EC4-200“  
MN05003003Z - Deutsch

[ftp://ftp.moeller.net/DOCUMENTATION/AWB\\_MANUALS/MN05003003Z\\_DE.pdf](ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05003003Z_DE.pdf)

Manual "easyControl, EC4-200 programmable  
PLC" MN05003003Z - English

[ftp://ftp.moeller.net/DOCUMENTATION/AWB\\_MANUALS/MN05003003Z\\_EN.pdf](ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05003003Z_EN.pdf)